

REMARKS

Claims 1-3 and 7-9 are pending. Claim 1 have been amended and claims 4-6 have been canceled. Entry of this paper is proper under 37 CFR §1.116 since the amendments presented herein: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments were made for the purpose of clarifying the meaning of claim terms which the Examiner requested Applicants to clarify); (3) satisfy a requirement of form asserted in the previous Office Action; and/or (4) place the application in better form for appeal (if necessary).

Reconsideration of the application is respectfully requested for the following reasons.

In the Office Action, claims 1, 2, and 5 were rejected under 35 USC § 112, second paragraph, on grounds that the word “automatic” not clear when used to describe the type of washing mode selected by a user.

The meaning of “automatic” is first defined at Paragraph [0009] of the specification. Here, the specification discloses that automatic washing is a type of washing performed according to a previously set washing condition. This condition corresponds to set of parameters which include, for example, water level, washing time, etc. (See, for example, Paragraph [0029]).

The specification also defines “automatic” in terms of how it is different from a manual washing mode. As disclosed at Paragraph [0009], manual washing is performed based on parameters that are manually set by a user, for example, through a control panel of the washing

machine, e.g., during manual washing mode a user may use control dials on the washing machine to separately set the time and temperature of washing water based on the user's preference.

From these disclosures, it is clear that an automatic washing mode in one in which laundry is washed based on a set of parameters that have been pre-programmed into a control unit of the washing machine (e.g., by the manufacturer when, for example, an automatic washing mode is selected by a user). It is further is clear from the specification that these parameters are pre-programmed into the control unit of the washing machine independent of any manual setting entered by a user.

This understanding of automatic washing mode is confirmed by Paragraphs [0029] - [0031], which disclose that the control unit may include or be coupled to a memory storing parameters that correspond to conditions that are to be imposed during automatic washing. This meaning of "automatic" washing is also well understood by those skilled in the art. See, for example, U.S. Patent No. 5,694,793 which discloses a washing machine that operates in manual or automatic modes, where in automatic mode washing is performed based on parameters that have been pre-programmed into a control unit of the machine. (See column 6, lines 46-54.) These disclosures support the following additional recitation added by amendment to claim 1: "wherein the first and second predetermined washing conditions are stored in a memory of the control unit."

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In answer to the Examiner's inquiry, the selection of an automatic washing mode may be performed, for example, based on selection of a feature on a control panel of the machine. Switches 8a and 8b of this type are shown in Figure 1 of the 793 patent, where when manual mode is selected by switch 8b the user makes further selections to input specific washing parameters including water level 18, washing time, etc.

To clarify the meaning of "automatic" in the claims, claim 1 has been amended to recite "detecting selection of an automatic washing mode by a user, . . . wherein, in the automatic washing mode, laundry is washed based on a set of parameters pre-programmed into a control unit of the washing machine, said parameters pre-programmed into the control unit independent of any manual setting entered by a user."

Applicants submit that the foregoing amendments and remarks are sufficient to overcome the § 112, second paragraph, rejection.

To overcome the claim objection, Applicants note that claim 1 has further been amended to clarify that (b) involves "sensing a temperature of water supplied to a tub of the washing machine from a water supply valve during the automatic washing mode." (Emphasis added)(See, for example, Paragraph [0026] of the specification for support).

With the meaning of "automatic" washing mode understood, we now turn to the art-based rejections. Claims 1, 7, and 8 were rejected under 35 USC § 102(b) for being anticipated by the Cho patent.

Claim 1 recites “(a) detecting selection of an automatic washing mode by a user and (b) sensing a temperature of water supplied to a tub of the washing machine from a water supply valve during the automatic washing mode.” The sensed temperature is compared to a reference temperature, and then laundry is washed based on one of two predetermined washing conditions based on an outcome of the comparison.

The Cho patent does not disclose steps (a) and (b). In Cho, the temperature of water supplied to a drum is detected, and then washing conditions are set based on a comparison of that temperature to a reference value. However, unlike claim 1, these steps in Cho are performed for a manual washing function, not for an automatic washing function as recited in the claims. See column 3, lines 33-35, which discloses: “When the *user sets S201 at time and a temperature* through the control panel 10, the washing machine performs the heating operation S202.” (Emphasis added). This manual user setting corresponds exactly to the type of manual washing mode described at Paragraph [0009] of Applicants’ specification, which is different from the automatic washing mode recited in claim 1.

In the Final Office Action, the Examiner indicated that Cho discloses manually selecting an automatic washing function. But this is not so. Column 3, lines 33-35, require the user to manually set the time and temperature of a washing operation. These manual settings clearly define the washing operation to be performed in manual mode. Moreover, Cho does not disclose manually setting an automatic washing mode at columns'5-6, lines 24-49, of the Cho

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patent. Rather, here, Cho merely discloses various subroutines that are performed while the Cho machine is operating in manual mode.

By requiring the user to set the time and temperature, the Cho washing machine operates in manual mode. Accordingly, the Cho patent does not disclose performing steps (c) and (d) **during an automatic washing mode** as required by claim 1.

Because the Cho patent does not disclose all the feature of claim 1, it is respectfully submitted that the Cho patent does not anticipate this claim. Applicants further submit that these differences are sufficient to render claim 1 and its dependent claims non-obvious and thus patentable over Cho.

Claims 2, 3, 5, and 9 were rejected under 35 USC § 103(a) based on the Cho patent taken in combination with the Harwood or Knopp patents. These rejections are traversed on grounds that the Harwood and Knopp patents do not teach or suggest the features of claim 1 missing from the Cho patent.

Claim 5 was rejected under 35 USC § 103(a) for being obvious in view of a Tanaka-Harwood combination. Claim 5 has been canceled.

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is in condition for allowance. Favorable consideration and allowance of the application are respectfully requested.

Serial No. 10/720,382

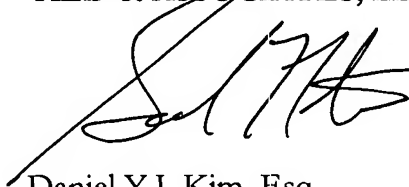
Docket No. K-0564

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To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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